

Math

Science

M4. Models with mathematics

S2: Develop & use models
S5: Use mathematics & computational thinking

S1: Ask questions and define problems

S3: Plan & carry out investigations

S4: Analyze & interpret data

S6: Construct explanations & design solutions

E2: Build a strong base of knowledge through content rich texts

E5: Read, write, and speak grounded in evidence

M3 & E4: Construct viable arguments and critique reasoning of others

S7: Engage in argument from evidence

S8: Obtain, evaluate, & communicate information

E3: Obtain, synthesize, and report findings clearly and effectively in response to task and purpose

E1: Demonstrate independence in reading complex texts, and writing and speaking about them

E7: Come to understand other perspectives and cultures through reading, listening, and collaborations

ELA

E6: Use technology & digital media strategically & capably

M5: Use appropriate tools strategically

M1: Make sense of problems and persevere in solving them

M2: Reason abstractly & quantitatively

M6: Attend to precision

M7: Look for & make use of structure

M8: Look for & make use of regularity in repeated reasoning

Commonalities Among the Practices in Science, Mathematics and English Language Arts

Based on work by Tina Chuek ell.stanford.edu

Practices in Mathematics, Science, and English Language Arts*

| Math | Science | English Language Arts |
|---|--|--|
| <p>M1. Make sense of problems and persevere in solving them.</p> <p>M2. Reason abstractly and quantitatively.</p> <p>M3. Construct viable arguments and critique the reasoning of others.</p> <p>M4. Model with mathematics.</p> <p>M5. Use appropriate tools strategically.</p> <p>M6. Attend to precision.</p> <p>M7. Look for and make use of structure.</p> <p>M8. Look for and express regularity in repeated reasoning.</p> | <p>S1. Asking questions (for science) and defining problems (for engineering).</p> <p>S2. Developing and using models.</p> <p>S3. Planning and carrying out investigations.</p> <p>S4. Analyzing and interpreting data.</p> <p>S5. Using mathematics, information and computer technology, and computational thinking.</p> <p>S6. Constructing explanations (for science) and designing solutions (for engineering).</p> <p>S7. Engaging in argument from evidence.</p> <p>S8. Obtaining, evaluating, and communicating information.</p> | <p>E1. They demonstrate independence.</p> <p>E2. They build strong content knowledge.</p> <p>E3. They respond to the varying demands of audience, task, purpose, and discipline.</p> <p>E4. They comprehend as well as critique.</p> <p>E5. They value evidence.</p> <p>E6. They use technology and digital media strategically and capably.</p> <p>E7. They come to understanding other perspectives and cultures.</p> |

* The Common Core English Language Arts uses the term “student capacities” rather than the term “practices” used in Common Core Mathematics and the Next Generation Science Standards.